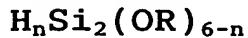


CLAIMS

[1] A method for producing a silicon oxide film characterized in that said silicon oxide film is formed by thermochemical vapor-phase deposition method at the pressure in the range from 0.01mmHg to 2 atm using a silane compound represented by the following general formula and a diluted gas as a starting gas.



(In the above formula, R is an alkyl group of carbon number from 1 to 6, and n is an integer from 0 to 5.)

[2] The method for producing a silicon oxide film according to Claim 1, characterized in that said silicon oxide film is formed by plasma chemical vapor-phase deposition method instead of said thermochemical vapor-phase deposition method.

[3] The method for producing a silicon oxide film according to Claim 1 or 2, characterized in that further ozone is used as an oxidizing agent.

[4] The method for producing a silicon oxide film according to any one of Claims 1 to 3, characterized in that deposition temperature is controlled to the range from 200 to 500°C.

[5] The method for manufacturing a semiconductor device characterized in depositing an insulating film composed of said silicon oxide film obtained by said method according to any one of Claims 1 to 4.